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1731
 AF #

Attorney Docket No. P17233

In re application of : H. PRINZING et al.

Serial No. : 09/228,658

Group Art Unit: 1731

Filed : January 12, 1999

Examiner: D. Walls

For : PRESS DEVICE AND METHOD OF USING THE SAME

THE COMMISSIONER OF PATENTS AND TRADEMARKS
 Washington, D.C. 20231

Sir:

Transmitted herewith is an Appeal Brief Under 37 CFR 1.192(in triplicate) in the above-captioned application.

- ☐ Small Entity Status of this application under 37 C.F.R. 1.9 and 1.27 has been established by a verified statement previously filed.
☐ A verified statement to establish small entity status under 37 C.F.R. 1.9 and 1.27 is enclosed.
☐ A Request for Extension of Time.
☐ No Additional Fee.

The fee has been calculated as shown below:

Claims After Amendment	No. Claims Previously Paid For	Present Extra	Small Entity		Other Than A Small Entity	
			Rate	Fee	Rate	Fee
Total Claims: 34	*34	0	x 9=	\$	x 18=	\$0.00
Indep. Claims: 2	**3	0	x 40=	\$	x 80=	\$0.00
Appeal Fee			155=	\$	+310=	\$310.00
Extension Fees for Month				\$		\$0.00
Total:				\$	Total:	\$310.00

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*If less than 20, write 20

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☐ Please charge my Deposit Account No. 19-0089 in the amount of \$_____.

☒ A Check in the amount of \$310.00 to cover the filing fee is included.

☒ The Commissioner is hereby authorized to charge payment of the following fees associated with this communication or credit any overpayment to Deposit Account No. 19-0089.

☒ Any additional filing fees required under 37 C.F.R. 1.16.

☒ Any patent application processing fees under 37 C.F.R. 1.17, including any required extension of time fees in any concurrent or future reply requiring a petition for extension of time for its timely submission (37 CFR 1.136)(a)(3).

Nell F. Greenblum
 Reg. No. 28,394

35.03

P17233.A09

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appellants : H. PRINZING et al.

Appln No. : 09/228,658

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For : PRESS DEVICE AND METHOD OF USING THE SAME



Group Art Unit: 1731

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#13/BM
2-28-01
(18/3)

APPEAL BRIEF UNDER 37 C.F.R. § 1.192

Commissioner of Patents and Trademarks
Washington, D.C. 20231

Sir:

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This appeal is from the Examiner's final rejection of claims 1 - 34 as set forth in the Official Action of August 24, 2000.

A Notice of Appeal in response to the August 24, 2000 Final Office Action was filed December 26, 2000, along with a Request for a One-month Extension of Time.

The requisite fee under 37 C.F.R. 1.17(c) in the amount of \$ 310.00 for the filing of the Appeal Brief is being paid by check, submitted herewith. However, if for any reason the necessary fee is not associated with this file, the Commissioner is authorized to charge the fee for the Appeal Brief and any necessary extension of time fees to Deposit Account No. 19 - 0089.

This appeal brief is being submitted in triplicate, pursuant to 37 C.F.R. 1.192(a).

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(1) REAL PARTY IN INTEREST

The real party in interest is Voith Sulzer Papiertechnik Patent GmbH by an assignment recorded in the U.S. Patent and Trademark Office on January 12, 1999 at Reel 9716 and Frame 0139.

(2) RELATED APPEALS AND INTERFERENCES

No related appeals and/or interferences are pending.

(3) STATUS OF THE CLAIMS

Claims 1 - 34, the only claims pending in the instant application, stand finally rejected.

(4) STATUS OF THE AMENDMENTS

An Amendment under 37 C.F.R. 1.116 was filed November 22, 2000. The Examiner's Advisory Action of December 8, 2000 indicates that the amendment will be entered upon the filing of the Notice of Appeal and this Appeal Brief, and that, upon entry of the June 28, 2000 Amendment after Final Rejection, the formal rejections under 35 U.S.C. § 112, second paragraph will have been overcome, but that all claims remain rejected over the art of record.

(5) SUMMARY OF THE INVENTION

The instant invention is directed to method and apparatus for treating a fibrous material web, and more specifically to a press device with variably adjustable pressure and line force. (Specification page 1, lines 8 - 10). The instant invention provides a press device

where a pressure profile that is produced in the roll nip lateral to the web travel direction can be varied without requiring an additional series of support elements of the counter roll for this purpose. (Specification, page 3, lines 13 - 16). Moreover, in this roll nip, a pressure differential may be changed, so as to also change a line force differential between the shoe press unit and the counter roll. A variably adjustable pressure differential between the shoe press unit and the counter roll, in particular, allows a deformation in the roll nip formed between the counter roll and the other roll to be variable. As a result, in this otherwise not deflection-controlled roll nip, line forces can be adjusted over a wide range, wherein an optimal pressure cross-section is also always assured. (Specification, page 9, lines 6 - 13).

In press devices of the prior art, which are similar in general to the instant invention, the shoe press is usually disposed on top, and a line force that is as even as possible is generated, even in the roll nip that is not deflection-controlled, by a corresponding pressure differential or a corresponding line force differential between the shoe press unit and the counter roll. The pressure differential brings about the fact that the line force acting in the elongated press nip formed between the shoe press unit and the counter roll is not compensated for to the full extent by the internal support elements of the counter roll. The remaining force causes a deformation of the counter roll both in the elongated press nip formed by the shoe press unit, which can be easily compensated for by the flexible support element of the shoe press unit, and in the roll nip formed between the counter roll and the other roll. If the pressure differential is selected, for example, so that a greater pressure

occurs in the shoe press unit than in the counter roll, then a deflection of the counter roll occurs in form of a bulging towards the other roll in the roll nip formed between the counter roll and the other roll. Due to this bulging, the counter roll and the other roll can, for example, be embodied with a reduced cambering for the deflection compensation. With a slighter cambering of this kind, the speed differentials between the roll center and the roll ends can be kept small. In particular, such a line force differential can consequently be produced between the shoe press unit and the counter roll, which produces a deflection of the counter roll in the roll nip and as a result, permits a reduction of the required cambering in this roll nip. (Specification, page 2, lines 1 - 20).

By way of example, DE-A-195 20 443.3 discloses a press device where the pressure differential or the line force differential is fixed at a constant value. It is noted that, a fixed pressure differential, just as the lack of a pressure differential, brings with it the disadvantage that the line force can only be adjusted, at most, in a very limited range. This can be traced to the fact that the deformations, that are a function of the line force, can no longer be correctly compensated for by the fixed camberings provided and consequently leads to deviations of the pressure profile occurring over the web width. (Specification, page 2, lines 21 - 27).

To avoid the above-noted drawbacks of the prior art, the instant invention provides a variably changeable pressure differential between the shoe press unit and the counter roll that, with an intentional adjustment of the pressure differential, cross-section corrections can

be carried out in the roll nip formed between the counter roll and another roll. As a result, the moisture cross-section may consequently also be adjusted in the desired manner after the press. With a change of the pressure differential or the line force differential between the shoe press unit and the counter roll, the deflection of the counter roll in the roll nip also changes and, as a result, so does the pressure distribution being produced in the roll nip. In this connection, the press distribution changes only in the roll nip. A deflection change of the counter roll in the elongated press nip is compensated for by the flexible press shoe. As a result, it is possible to keep the line forces that act on the fibrous material web in at least one roll nip unchanged at the respectively adjusted desired value. Even with a change of the line forces in the neighboring press nips, an optimal, even line force can always be achieved in the roll nip formed between the counter roll and the other roll. (Specification, page 9, lines 14 - 27).

In order to improve the moisture cross-section (cross-profile) in the roll nip formed between the counter roll and the other roll, corrections of the line force are possible in the form of edge reliefs or edge loadings. In addition, the replacement of the other roll, that forms the roll nip with the counter roll, by a different roll with a different rigidity is simplified wherein the different rigidity can, for example, be due to the material, the wall thickness, or in the case of a suction roll, the bore pattern. Furthermore, a simpler adaptation to another magnitude of deformation in the roll nip is produced, which can be caused, for example, by a changed vacuum in the other roll. As a result, the previously possible

cambering change of the counter roll and the other roll by a corresponding change of the pressure differential between the shoe press unit and the counter roll can be avoided. (Specification, page 10, lines 1 - 10).

In a press device according to the present invention, it is particularly advantageous if the pressure differential, or the line force differential, can be changed continuously, at least in areas. In order to change the pressure differential, for example, the internal pressure, that is produced by the support elements of the shoe press unit and acts on its flexible press belt, may be changed. The pressure differential may be changed also, for example, if the internal pressure, that is produced by the support elements of the counter roll and acts on its roll jacket, can also be changed. It is also possible that to change the pressure differential, both the internal pressure, that is produced by the support elements of the shoe press unit and acts on its flexible press belt, and the internal pressure, that is produced by the support elements of the counter roll and acts on its roll jacket, may be changed. (Specification, page 10, lines 11 - 21).

In accordance with the features in exemplary embodiments of the instant invention, a press device provides an elongated nip 16 in a travel direction L, which is formed between a shoe press roll 12 and a counter roll 14, and a roll nip 20 formed between counter roll 14 and a suction roll 18. Shoe press roll 12 includes support element 24, which has a contour corresponding to the surface of counter roll 14 and which is arranged opposite support element 32 of counter roll 14. Further, support elements 24 and 32 can be formed by a

plurality of support elements, and support element 32 can be movable to angularly adjust an action plane 38 relative to press plane 40. (Specification, page 12, line 27 - page 14, line 7; and Figures 1 and 2).

The pressure fluid-actuated support elements 24 and 32 are connected to a common pressure fluid line 44, and support elements 32 can be connected into groups to common pressure fluid line 44. Further, support elements 24 and 32 may be acted on so that, with regard to the internal pressures (which are produced by support elements 24 and 32 and act on the flexible press jacket 26 of shoe press roll 12 or roll jacket 30 of counter roll 14), a pressure differential occurs that may also be determined in part by a different size of the pressing surfaces of the support elements 24 and 32. According to the present invention, this pressure differential may be changed. In particular, the line force differential between shoe press roll 12 and counter roll 14 can be changed with this pressure differential. Preferably, the cross-profile of the pressure differential between shoe press roll 12 and counter roll 14, which cross-profile is produced lateral to the web travel direction L, may be changed so that, in particular, different pressure differentials may be adjusted over the width. By way of the variable pressure differential between shoe press unit 12 and counter roll 14, the line force in roll nip 20 may consequently also be changed, wherein line forces may be adjusted in roll nip 20 that may be at least substantially even. The pressure differential or the line force differential may be changed continuously, at least in areas. The pressure differential or the line force differential may be adjusted externally in the current instance. The adjustment may

be carried out, for example, mechanically, hydraulically, pneumatically, manually, by remote control, at the site, from a control position, and/or in a process-guided manner, as is conventional. The pressure differential may, for example, be adjusted as a function of the line force in roll nip 20 by characteristic curves that may be predetermined, as is conventional, and may also be adjusted as a function of line force correction procedures for roll nip 20. In this embodiment of a press device according to the present invention, the adjustment takes place by way of an electronic control 62. It is in particular also possible that, for example, the respective line force correction procedures and/or the like may be produced by way of corresponding signals of a process guidance system. In addition, the pressure differential may be adjusted by way of a regulating system that includes at least one closed regulation loop. (Specification, page 14, line 16 - page 15, line 14; and Figures 1 and 2).

In the present exemplary embodiment of a press device according to the present invention, the internal pressure, which is produced by support elements 32 of the counter roll 14 and acts on its roll jacket 30, may be changed in order to change the pressure differential (see Fig. 2). In this embodiment, adjustable or variably adjustable pressure reduction devices 46 are provided in the pressure fluid connection between the common pressure fluid line 44 and support elements 32 of counter roll 14, such that the pressure differential may be changed by way of these variable pressure reduction devices 46. In order to reduce the pressure of support elements 32 that are connected in groups to the common pressure fluid

line 44, an adjustable or variably adjustable pressure reduction device 46 may be respectively provided between each group of support elements 32 and the common pressure fluid line 44. In contrast to this, support element 24 of shoe press roll 12 may be directly connected to the common pressure fluid line 44. The pressure reduction device 46 may, for example, respectively include a variably adjustable valve. (Specification, page 15, line 15 - page 16, line 8; and Figure 2).

(6) ISSUES

(A) Whether Claims 1 - 24 and 26 - 34 are Improperly Rejected Under the Judicially Created Doctrine of Obviousness-Type Double Patenting as being Unpatentable Over Claims 1 - 9 of BENTELE et al. (U.S. Patent No. 5,788,817) [hereinafter “BENTELE”] in view of European Patent Application No. 0 752 495 [hereinafter “EP ‘495”];

(B) Whether Claim 25 is Improperly Rejected Under the Judicially Created Doctrine of Obviousness-Type Double Patenting as being Unpatentable Over Claims 1 - 9 of BENTELE in view of *Handbook for Pulp & Paper Technologists*, 2nd. Ed. [hereinafter “SMOOK”];

(C) Whether Claims 1 - 24 and 26 - 34 are Improperly Rejected Under 35 U.S.C. § 103(a) as Unpatentable Over BENTELE in view of EP ‘495;

(D) Whether Claim 25 is Improperly Rejected Under 35 U.S.C. § 103(a) as Unpatentable Over BENTELE in view of EP ‘495 and further in view of

SMOOK;

(E) Whether Claims 1 - 24 and 26 - 34 are Improperly Rejected Under 35 U.S.C. § 103(a) as Unpatentable Over German Patent Application No. 195 20 443 [hereinafter “DE ‘443”] in view of EP ‘495;

(F) Whether Claim 25 is Improperly Rejected Under 35 U.S.C. § 103(a) as Unpatentable Over DE ‘443 in view of EP ‘495 and further in view of SMOOK;

(7) GROUPING OF CLAIMS

For the purpose of this appeal, Appellants submit that none of the claims stand or fall together. Therefore, each of claims 1 - 34 are separately patentable for the reasons set forth hereinbelow.

(8) ARGUMENT

(A) The Rejection of Claims 1 - 24 and 26 - 34 Under the Judicially Created Doctrine of Obviousness-Type Double Patenting as being Unpatentable over Claims 1 - 9 of BENTELE in view of EP ‘495 is in Error, the Rejection Should be Reversed, and the Application Should be Remanded to the Examiner.

The Examiner acknowledges that the claims of BENTELE fail to disclose a pressure fluid line arranged to generate internal pressures by the first and second support elements, and an adjustment device arranged to change a pressure differential between the internal pressures generated by the first and second support elements, but asserts that, because EP ‘495 discloses a shoe press having support elements to press against a sag adjustment roll

with support elements, and that these support elements are fed with pressurized liquid from a common source, and that it would have been obvious to modify BENTELE to include an adjustment device, as disclosed by EP '495.

Initially, Appellants agree with the Examiner's assessment that claims 1 - 9 of BENTELE fail to disclose, *inter alia*, a pressure fluid line arranged to generate internal pressures by the at least one first support element on the flexible press belt of the shoe press unit and by the at least one second support element on the roll jacket of the counter roll, and an adjustment device arranged to change a pressure differential between the internal pressures generated by the at least one first support element acting on the flexible press belt of the shoe press unit, and the at least one second support element acting on the roll jacket of the counter roll, as recited in at least independent claim 1. Moreover, Appellants submit that BENTELE fails to disclose, *inter alia*, adjusting a pressure differential between internal pressures generated by the at least one first support element acting on the flexible press belt, and the at least one second support element acting on the roll jacket, where the pressure differential is adjusted by adjusting the pressure of the fluid supplied to the at least one first support unit and the at least one second support unit, as recited in at least independent claim 33.

Moreover, Appellants submit that claims 1 - 9 of BENTELE fail to teach or suggest the additional use of the above-noted features. In this regard, the Examiner has applied the EP '495 in combination with BENTELE. However, Appellants note that EP '495 discloses

a shoe press device and that the pressure of the support elements should be approximately alike. Further, contrary to the Examiner's assertions, EP '495 discloses a *pressure reduction valve* 28 to adjust the pressure *to compensate for the weight of the roll jacket*, not an adjustment device to change a differential pressure, as recited in at least independent claims 1 and 33.

Appellants further note that, in establishing a *prima facie* case of obviousness under 35 U.S.C. § 103, it is incumbent upon the Examiner to provide a reason *why* one of ordinary skill in the art would have found it obvious to modify a prior art reference or to combine reference teachings to arrive at the claimed invention. *See Ex parte Clapp*, 227 USPQ 972 (BPAI 1985) To this end, the requisite motivation must stem from some teaching, suggestion or inference in the prior art as a whole or from the knowledge generally available to one of ordinary skill in the art and not from Appellant's disclosure. *See, for example, Uniroyal, Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 5 USPQ2d 1434 (Fed. Cir. 1988). Notwithstanding the Examiner's statement that it would have been obviousness to modify claims 1 - 9 of BENTELE in view of EP '495, Appellants contend that this is not a reason *why* one of ordinary skill in the art would have been led to modify the device of BENTELE. It is respectfully submitted that the courts have long held that it is impermissible to use Appellants' claimed invention as an instruction manual or "template" to piece together teachings of the prior art so that the claimed invention is purportedly rendered obvious. *See In re Fritch*, 972 R.2d 1260, 1266, 23 USPQ2d 1780, 1784 (Fed. Cir. 1992).

However, notwithstanding this failure of articulate reasons why one would have found it obvious to modify claims 1 - 9 of BENTELE, Appellants submit that, as neither applied document teaches or suggests at least the above-noted feature of the instant invention, no proper combination of these documents can render unpatentable the instant invention as recited in at least independent claims 1 and 33.

Moreover, Appellants note that EP '495 discloses additional pressure controls coupled to press shoes having different dimensions than the main shoe presses, i.e., at the edge regions. These controls are provided to reduce the pressure to the reduced sized shoes so that a uniform pressure is produced. As such, Appellants submit that EP '495 provides no teaching or suggestion of adjusting a differential pressure, as recited in at least independent claims 1 and 33, rather, EP '495 strives to maintain a uniform pressure between support elements, regardless of the relative sizes of the support elements.

Therefore, Appellants submit that no proper combination of claims 1- 9 of BENTELE in view of EP '495 can render unpatentable the combination of features recited in at least independent claims 1 and 33. Thus, Appellants submit that the asserted rejection is improper and should be withdrawn.

Further, Appellants note that rejections based on 35 U.S.C. § 103 must rest on a factual basis with these facts being interpreted without hindsight reconstruction of the invention from the prior art. The Examiner has the initial duty of supplying the factual basis for the rejection and may not, because of doubt that the invention is patentable, resort to

speculation, unfounded assumption or hindsight reconstruction to supply deficiencies in the factual basis. *See In re Warner*, 379 F.2d 1011, 1017, 154 USPQ 173, 177 (CCPA 1967). As stated in *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1553, 220 USPQ 303, 312-313 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984):

[t]o imbue one of ordinary skill in the art with knowledge of the invention in suit, when no prior art reference or references of record convey or suggest that knowledge, is to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher.

As claims 1 - 9 of BENTELE fail to teach or suggest different sized support elements and/or maintaining a uniform pressure between differently sized support elements extending in a longitudinal direction, the art of record fails to teach or suggest the requisite motivation or rationale for modifying BENTELE in accordance with the teaching of EP '495. Accordingly, Appellants submit that it is apparent that the only reason to combine BENTELE and EP '495 in the manner asserted by the Examiner results from a review of Appellants' disclosure and the application of impermissible hindsight, and that the rejections based on this improper combination are also improper and should be withdrawn.

Appellants also note that, in *In re Mills*, 16 USPQ2d 1430 (Fed. Cir. 1990), the Federal Circuit held that the Examiner must afford patentable weight to functional limitations that are non-obvious over the prior art. Accordingly, Appellants submit that the Examiner cannot simply ignore functional features. Further, Appellants note that, since some the pending claims recite structural features that, by virtue of their particular design and

arrangement, can also provide a specified function, these feature cannot be ignored by the Examiner as merely functional.

Further, Appellant submits that even if it is considered that the prior art documents have been properly combined, which Appellant submits they are not, the applied documents fail to disclose or suggest the various recited parameters of pressure, arrangement of the elements, the interconnection between the elements, and other recited features. Thus, Appellants submit that no proper combination of BENTELE in view of EP '495 teaches or suggests, *inter alia*, the at least one first support element being pressure fluid-actuated, as recited in claim 2; the at least one second support element being pressure fluid-actuated, as recited in claim 3; the fibrous material web comprising at least one of a paper web and a cardboard web, as recited in claim 4; a line force differential between the shoe press unit and the counter roll being changeable with the pressure differential, as recited in claim 5; a cross-section of the pressure differential being produced lateral to the web travel direction, the cross-section of the pressure differential being changeable so different pressure differentials are adjustable over the width, as recited in claim 6; the line force in the roll nip changeable by way of the pressure differential, as recited in claim 7; line forces that are at least essentially even being adjusted in the roll nip by way of the variable pressure differential, as recited in claim 8; one of the pressure differential and the line force differential being continuously changeable in areas, as recited in claim 9; the internal pressure produced by the at least one first support element being changeable to change the pressure differential, as

recited in claim 10; the internal pressure produced by the at least one second support element being changeable to change the pressure differential, as recited in claim 11; both the internal pressure produced by the at least one first support element and the internal pressure produced by the at least one second support element being changeable to change the pressure differential, as recited in claim 12; the at least one first support element and the at least one second support element being connected to the common pressure fluid line, the adjustment device comprising the adjustable pressure reduction device provided in at least one of the pressure fluid connection between the common pressure fluid line and the at least one first support element, and the pressure fluid connection between the common pressure fluid line and the at least one second support element, the pressure differential being changeable by the adjustable pressure reduction device, as recited in claim 13; at least one of the at least one first support element and the at least one second support element being connected to the common pressure fluid line one of individually, in groups, and all together, as recited in claim 14; the adjustable pressure reduction device being provided between at least one of the groups of the at least one second support element and the common pressure fluid line, thereby reducing the pressure of the at least one second support element connected to the common pressure fluid line in groups, as recited in claim 15; the adjustable pressure reduction device being provided between at least one individual at least one second support element and the common pressure fluid line, thereby reducing the pressure of the at least one second support element individually connected to the common pressure fluid line, as recited

in claim 16; the adjustable pressure reduction device including at least one variably adjustable valve, as recited in claim 17; at least one of the pressure differential and the line force differential being externally adjustable, as recited in claim 18; at least one of the pressure differential and the line force differential being adjustable by one of mechanically, hydraulically, pneumatically, manually, by remote control, at the site, from a control position, and in a process-guided manner, as recited in claim 19; the pressure differential being adjustable as a function of a line force in the roll nip by predeterminable characteristic curves, as recited in claim 20; the pressure differential being adjustable as a function of line force correction procedures for the roll nip, wherein the line force correction procedures may be at least one of input by way of an electronic control and produced by way of corresponding signals of a process guidance system, as recited in claim 21; the pressure differential being adjustable by way of a regulating system that includes at least one closed regulation loop, as recited in claim 22; a line force in a second roll nip formed between the third roll and a fourth roll being changeable by way of the pressure differential, as recited in claim 23; at least one of the counter roll and the third roll being cambered, as recited in claim 24; the shoe press unit comprising a shoe press roll and the flexible press belt, the flexible press belt comprising a flexible press jacket, as recited in claim 26; the shoe press unit disposed above the counter roll, as recited in claim 27; the ends of the roll jacket of the counter roll being supported on the relevant carrier so that the roll jacket cannot move radially, as recited in claim 28; an action plane of the at least one second support element of

the counter roll inclined slightly in relation to a second action plane of the at least one first support element of the shoe press unit, wherein an inclination angle lies in a range from about 2° to 15°, as recited in claim 29; the inclination angle lies in a range from about 4° to 8°, as recited in claim 30; an action plane of the at least one second support element of the counter roll coinciding, at least essentially, with a second action plane of the at least one first support element of the shoe press unit, as recited in claim 31; comprising pressure-active surfaces of the at least one second support element being not equal to second pressure-active surfaces of the at least one first support element of the shoe press unit, as recited in claim 32; and a control device coupled to the adjustment device, wherein the control device is adapted to adjust the adjustment device, as recited in claim 34.

Accordingly, Appellants request that the Examiner's final rejection of claims 1 - 24 and 26 - 34 under the judicially created doctrine of obviousness-type double patenting rejection be reversed, and that the application be remanded to the Examiner for withdrawal of the rejection over claims 1 - 9 of BENTELE in view of EP '495 and for an early allowance of all claims on appeal.

(B) The Rejection of Claim 25 Under the Judicially Created Doctrine of Obviousness-Type Double Patenting as being Unpatentable over Claims 1 - 9 of BENTELE in view of SMOOK is in Error, the Rejection Should be Reversed, and the Application Should be Remanded to the Examiner.

As noted above, Appellants agree with the Examiner's assessment that claims 1 - 9

of BENTELE fail to disclose, *inter alia*, a pressure fluid line arranged to generate internal pressures by the at least one first support element on the flexible press belt of the shoe press unit and by the at least one second support element on the roll jacket of the counter roll, and an adjustment device arranged to change a pressure differential between the internal pressures generated by the at least one first support element acting on the flexible press belt of the shoe press unit, and the at least one second support element acting on the roll jacket of the counter roll, as recited in at least independent claim 1.

Further, Appellants note that SMOOK fails to teach or suggest any of the subject matter noted above as deficient in claims 1 - 9 of BENTELE. As such, Appellants submit that claim 25 is patentably defined over any proper combination of claims 1 - 9 of BENTELE in view of SMOOK.

Therefore, as the Examiner has acknowledged that claims 1 - 9 of BENTELE fails to teach or suggest a pressure fluid line arranged to generate internal pressures by the at least one first support element on the flexible press belt of the shoe press unit and by the at least one second support element on the roll jacket of the counter roll, and an adjustment device arranged to change a pressure differential between the internal pressures generated by the at least one first support element acting on the flexible press belt of the shoe press unit, and the at least one second support element acting on the roll jacket of the counter roll, as recited in at least independent claim 1, and as SMOOK fails to teach or suggest such features, Appellants submit that no proper combination of claims 1 - 9 of BENTELE and SMOOK

teaches or suggests the combination of features recited in claim 25.

Accordingly, Appellants request that the Examiner's final rejection of claim 25 under the judicially created doctrine of obviousness-type double patenting rejection be reversed, and that the application be remanded to the Examiner for withdrawal of the rejection over claims 1 - 9 of BENTELE in view of SMOOK and for an early allowance of all claims on appeal.

(C) The Rejection of Claims 1 - 24 and 26 - 34 Under 35 U.S.C. § 103(a) as Unpatentable Over BENTELE in view of EP '495 is in Error, the Rejection Should be Reversed, and the Application Should be Remanded to the Examiner.

The Examiner acknowledges that, while BENTELE fails to disclose a pressure fluid line arranged to generate internal pressures by the first and second support elements, and an adjustment device arranged to change a pressure differential between the internal pressures generated by the first and second support elements, because EP '495 discloses a shoe press having support elements to press against a sag adjustment roll with support elements, and because these support elements are fed with pressurized liquid from a common source, that it would have been obvious to modify BENTELE to include an adjustment device, as disclosed by EP '495.

In addition to the above-discussion of BENTELE and EP '495, Appellants note BENTELE fails to teach or suggest the requisite motivation or rationale for modifying BENTELE to include a pressure fluid line arranged to generate internal pressures by the at

least one first support element on the flexible press belt of the shoe press unit and by the at least one second support element on the roll jacket of the counter roll, and an adjustment device arranged to change a pressure differential between the internal pressures generated by the at least one first support element acting on the flexible press belt of the shoe press unit, and the at least one second support element acting on the roll jacket of the counter roll, as recited in at least independent claim 1. Further, Appellants submit that BENTELE fails to teach or suggest adjusting a pressure differential between internal pressures generated by the at least one first support element acting on the flexible press belt, and the at least one second support element acting on the roll jacket, where the pressure differential is adjusted by adjusting the pressure of the fluid supplied to the at least one first support unit and the at least one second support unit, as recited in claim 33. Appellants submit that a proper combination of BENTELE and EP '495 fails to teach or suggest at least the above-noted features of the instant invention.

Thus, Appellants submit that, as neither applied document teaches or suggests at least the above-noted features of the instant invention, no proper combination of BENTELE in view of EP '495 can render unpatentable the combination of features recited in at least independent claims 1 and 33. Thus, Appellants submit that the asserted rejection is improper and should be withdrawn.

Further, Appellants note that the Examiner has again failed to provide a reason *why* one of ordinary skill in the art would have found it obvious to combine BENTELE and EP

'495 in the manner asserted by the Examiner. Thus, Appellants submit that, as the asserted combination of documents fail to teach or suggest why one ordinarily skilled in the art would have combined the documents, the rejection based upon this improper combination is improper and should be reversed.

Still further, while BENTELE discloses throttles 13 located between the common fluid pressure line 12 and each support element, these throttles are provided to ensure a greater pressing pressure being applied at the press roll 3 than at the backing roll 8. In this way, shell 9 of backing roll 8 sags downwardly in its axial central region. However, BENTELE fails to disclose or suggest the specifics of throttles 13, and certainly fails to disclose or suggest any information with regard to adjustability. Thus, Appellants submit that BENTELE fails to disclose or suggest, *inter alia*, *an adjustment device arranged to change a pressure differential* between the internal pressures generated by the at least one first support element acting on the flexible press belt of the shoe press unit, and the at least one second support element acting on the roll jacket of the counter roll, as recited in at least independent claim 1, and fails to disclose or suggest, *inter alia*, *adjusting a pressure differential* between internal pressures generated by the at least one first support element acting on the flexible press belt, and the at least one second support element acting on the roll jacket, where the pressure differential is adjusted by adjusting the pressure of the fluid supplied to the at least one first support unit and the at least one second support unit, as recited in at least independent claim 33.

Appellants note that EP '495 discloses a shoe press device and that the pressure of the support elements should be approximately alike, but that, contrary to the Examiner's assertions, EP '495 discloses a *pressure reduction valve 28* to adjust the pressure *to compensate for the weight of the roll jacket*, not an adjustment device to change a differential pressure, as recited in at least independent claims 1 and 33.

Moreover, Appellants note that EP '495 discloses additional pressure controls coupled to press shoes having different dimensions than the main shoe presses, i.e., at the edge regions. These controls are provided to reduce the pressure to the reduced sized shoes so that a uniform pressure is produced. As such, Appellants submit that EP '495 provides no teaching or suggestion of adjusting a differential pressure, as recited in at least independent claims 1 and 33, rather, EP '495 strives to maintain a uniform pressure between support elements, regardless of the relative sizes of the support elements.

As discussed above, rejections based on 35 U.S.C. § 103 must rest on a factual basis with these facts being interpreted without hindsight reconstruction of the invention from the prior art. The Examiner has the initial duty of supplying the factual basis for the rejection and may not, because of doubt that the invention is patentable, resort to speculation, unfounded assumption or hindsight reconstruction to supply deficiencies in the factual basis. *See In re Warner*, 379 F.2d 1011, 1017, 154 USPQ 173, 177 (CCPA 1967). As stated in *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1553, 220 USPQ 303, 312-313 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984):

[t]o imbue one of ordinary skill in the art with knowledge of the invention in suit, when no prior art reference or references of record convey or suggest that knowledge, is to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher.

Thus, as BENTELE discloses only that the throttles are provided to produce a specific sag in shell 9, Appellants submit that it is apparent that the only reason to combine the teachings of BENTELE and EP '495 in the manner proposed by the Examiner results from a review of Appellants' disclosure and the application impermissible hindsight.

Therefore, Appellants submit that the applied documents fail to teach or suggest the requisite motivation or rationale to lead one ordinarily skilled in the art to modify BENTELE so as to include an adjustment device to change a pressure differential between the internal pressures generated by the at least one first support element acting on the flexible press belt of the shoe press unit, and the at least one second support element acting on the roll jacket of the counter roll, as recited in at least independent claim 1, and/or to adjust a pressure differential between internal pressures generated by the at least one first support element acting on the flexible press belt, and the at least one second support element acting on the roll jacket, where the pressure differential is adjusted by adjusting the pressure of the fluid supplied to the at least one first support unit and the at least one second support unit, as recited in at least independent claim 33.

Moreover, as BENTELE fail to teach or suggest different sized support elements and/or maintaining a uniform pressure between differently sized support elements extending

in a longitudinal direction, the art of record fails to teach or suggest the requisite motivation or rationale for modifying BENTELE in accordance with the teaching of EP '495. Accordingly, Appellants submit that the asserted modification of BENTELE can only be based upon a review of Appellants' disclosure and the application of impermissible hindsight, and that the rejections based on this improper combination are also improper and should be withdrawn.

Appellants also note that, in *In re Mills*, 16 USPQ2d 1430 (Fed. Cir. 1990), the Federal Circuit held that the Examiner must afford patentable weight to functional limitations that are non-obvious over the prior art. Accordingly, Appellants submit that the Examiner cannot simply ignore functional features. Further, Appellants note that, since some the pending claims recite structural features that, by virtue of their particular design and arrangement, can also provide a specified function, these feature cannot be ignored by the Examiner as merely functional.

Further still, Appellant submits that even if it is considered that the prior art documents have been properly combined, which Appellant submits they are not, the applied documents fail to disclose or suggest the various recited parameters of pressure, arrangement of the elements, the interconnection between the elements, and other recited features. Thus, Appellants submit that no proper combination of BENTELE in view of EP '495 teaches or suggests, *inter alia*, the at least one first support element being pressure fluid-actuated, as recited in claim 2; the at least one second support element being pressure fluid-actuated, as

recited in claim 3; the fibrous material web comprising at least one of a paper web and a cardboard web, as recited in claim 4; a line force differential between the shoe press unit and the counter roll being changeable with the pressure differential, as recited in claim 5; a cross-section of the pressure differential being produced lateral to the web travel direction, the cross-section of the pressure differential being changeable so different pressure differentials are adjustable over the width, as recited in claim 6; the line force in the roll nip changeable by way of the pressure differential, as recited in claim 7; line forces that are at least essentially even being adjusted in the roll nip by way of the variable pressure differential, as recited in claim 8; one of the pressure differential and the line force differential being continuously changeable in areas, as recited in claim 9; the internal pressure produced by the at least one first support element being changeable to change the pressure differential, as recited in claim 10; the internal pressure produced by the at least one second support element being changeable to change the pressure differential, as recited in claim 11; both the internal pressure produced by the at least one first support element and the internal pressure produced by the at least one second support element being changeable to change the pressure differential, as recited in claim 12; the at least one first support element and the at least one second support element being connected to the common pressure fluid line, the adjustment device comprising the adjustable pressure reduction device provided in at least one of the pressure fluid connection between the common pressure fluid line and the at least one first support element, and the pressure fluid connection between the common pressure fluid line

and the at least one second support element, the pressure differential being changeable by the adjustable pressure reduction device, as recited in claim 13; at least one of the at least one first support element and the at least one second support element being connected to the common pressure fluid line one of individually, in groups, and all together, as recited in claim 14; the adjustable pressure reduction device being provided between at least one of the groups of the at least one second support element and the common pressure fluid line, thereby reducing the pressure of the at least one second support element connected to the common pressure fluid line in groups, as recited in claim 15; the adjustable pressure reduction device being provided between at least one individual at least one second support element and the common pressure fluid line, thereby reducing the pressure of the at least one second support element individually connected to the common pressure fluid line, as recited in claim 16; the adjustable pressure reduction device including at least one variably adjustable valve, as recited in claim 17; at least one of the pressure differential and the line force differential being externally adjustable, as recited in claim 18; at least one of the pressure differential and the line force differential being adjustable by one of mechanically, hydraulically, pneumatically, manually, by remote control, at the site, from a control position, and in a process-guided manner, as recited in claim 19; the pressure differential being adjustable as a function of a line force in the roll nip by predeterminable characteristic curves, as recited in claim 20; the pressure differential being adjustable as a function of line force correction procedures for the roll nip, wherein the line force correction procedures may

be at least one of input by way of an electronic control and produced by way of corresponding signals of a process guidance system, as recited in claim 21; the pressure differential being adjustable by way of a regulating system that includes at least one closed regulation loop, as recited in claim 22; a line force in a second roll nip formed between the third roll and a fourth roll being changeable by way of the pressure differential, as recited in claim 23; at least one of the counter roll and the third roll being cambered, as recited in claim 24; the shoe press unit comprising a shoe press roll and the flexible press belt, the flexible press belt comprising a flexible press jacket, as recited in claim 26; the shoe press unit disposed above the counter roll, as recited in claim 27; the ends of the roll jacket of the counter roll being supported on the relevant carrier so that the roll jacket cannot move radially, as recited in claim 28; an action plane of the at least one second support element of the counter roll inclined slightly in relation to a second action plane of the at least one first support element of the shoe press unit, wherein an inclination angle lies in a range from about 2° to 15°, as recited in claim 29; the inclination angle lies in a range from about 4° to 8°, as recited in claim 30; an action plane of the at least one second support element of the counter roll coinciding, at least essentially, with a second action plane of the at least one first support element of the shoe press unit, as recited in claim 31; comprising pressure-active surfaces of the at least one second support element being not equal to second pressure-active surfaces of the at least one first support element of the shoe press unit, as recited in claim 32; and a control device coupled to the adjustment device, wherein the control device is adapted

to adjust the adjustment device, as recited in claim 34.

Accordingly, Appellant respectfully requests that the Examiner's final rejection of claims 1 - 24 and 26 - 34 under 35 U.S.C. § 103(a) be reversed, and that the application be remanded to the Examiner for withdrawal of the rejection over BENTELE in view of EP '495 and for an early allowance of all claims on appeal.

(D) The Rejection of Claim 25 Under 35 U.S.C. § 103(a) Over BENTELE in view of EP '495 and further in view of SMOOK is in Error, the Rejection Should be Reversed, and the Application Should be Remanded to the Examiner.

Appellants note that SMOOK fails to disclose or suggest the subject matter noted above as deficient in BENTELE, and fails to disclose or suggest the necessary motivation or rationale for modifying BENTELE in the manner asserted by the Examiner. In particular, SMOOK fails to disclose or suggest, *inter alia*, an adjustment device arranged to change a pressure differential between the internal pressures generated by the at least one first support element acting on the flexible press belt of the shoe press unit, and the at least one second support element acting on the roll jacket of the counter roll, as recited in at least independent claim 1, as now amended.

Moreover, SMOOK fails to disclose or suggest any subject matter which would provide the requisite motivation or rationale to modify BENTELE in the manner asserted by the Examiner. That is, because SMOOK fails to disclose or suggest at least the above-noted subject matter noted as deficient in BENTELE, Appellants submit that it would not have

been obvious to modify BENTELE to include an adjustment device, as recited in at least independent claim 1, as now amended.

Still further, Appellants note that the Examiner has not combined EP '495 with BENTELE and SMOOK, nor has the Examiner asserted (nor can she) that SMOOK teaches or suggests the subject matter noted by the Examiner as deficient in BENTELE.

Further, Appellants submit that claim 25 is allowable at least for the reason that it depends from allowable base claims and because recites additional features that further define the present invention. In particular, Appellants submit that no proper combination of BENTELE and SMOOK discloses or suggests, in combination, the third roll, the fourth roll, and the counter roll being cambered, as recited in claim 25.

Accordingly, Appellant respectfully requests that the Examiner's final rejection of claim 25 under 35 U.S.C. § 103(a) be reversed, and that the application be remanded to the Examiner for withdrawal of the rejection over BENTELE in view of SMOOK and for an early allowance of all claims on appeal.

(E) The Rejection of Claims 1 - 24 and 26 - 34 Under 35 U.S.C. § 103(a) as Unpatentable Over DE '443 in view of EP '495 is in Error, the Rejection Should be Reversed, and the Application Should be Remanded to the Examiner.

The Examiner acknowledges that, while DE '443 fails to disclose a pressure fluid line arranged to generate internal pressures by the first and second support elements, and an adjustment device arranged to change a pressure differential between the internal pressures

generated by the first and second support elements, because EP '495 discloses a shoe press having support elements to press against a sag adjustment roll with support elements, and because these support elements are fed with pressurized liquid from a common source, that it would have been obvious to modify DE '443 to include an adjustment device, as disclosed by EP '495.

In addition to the above-discussion, Appellants note that DE '443 is a U.S. Patent family member of BENTELE, and, therefore, suffers from the same deficiencies as have been noted above with regard to BENTELE. Moreover, the asserted combination of DE '443 and EP '495, suffers from the above-noted deficiencies of BENTELE and EP '495. Appellants further note that, as a translation of DE '443 has not been made of record, Appellants are unclear as to the Examiner's express basis for asserting motivation or rationale for modifying DE '443. Thus, it appears that the Examiner's stated motivation or rationale for modifying DE '443 is found, not in the applied document, but in the U.S. family member BENTELE, which is an improper incorporation of motivation into the German language document. Accordingly, Appellants submit that the asserted rejection is improper and should be reversed.

In particular, Appellants note DE '443 fails to teach or suggest the requisite motivation or rationale for modifying DE '443 to include a pressure fluid line arranged to generate internal pressures by the at least one first support element on the flexible press belt of the shoe press unit and by the at least one second support element on the roll jacket of the

counter roll, and an adjustment device arranged to change a pressure differential between the internal pressures generated by the at least one first support element acting on the flexible press belt of the shoe press unit, and the at least one second support element acting on the roll jacket of the counter roll, as recited in at least independent claim 1. Further, Appellants submit that DE '443 fails to teach or suggest adjusting a pressure differential between internal pressures generated by the at least one first support element acting on the flexible press belt, and the at least one second support element acting on the roll jacket, where the pressure differential is adjusted by adjusting the pressure of the fluid supplied to the at least one first support unit and the at least one second support unit, as recited in claim 33. Appellants submit that DE '443 fails to disclose at least the above-noted features of the instant invention.

Thus, Appellants submit that, as neither applied document teaches or suggests at least the above-noted features of the instant invention, no proper combination of DE '443 in view of EP '495 can render unpatentable the combination of features recited in at least independent claims 1 and 33. Thus, Appellants submit that the asserted rejection is improper and should be withdrawn.

Further, Appellants note that the Examiner has again failed to provide a reason *why* one of ordinary skill in the art would have found it obvious to combine DE '443 and EP '495 in the manner asserted by the Examiner. Thus, Appellants submit that, as the asserted combination of documents fail to teach or suggest why one ordinarily skilled in the art would

have combined the documents, the rejection based upon this improper combination is improper and should be reversed.

While DE '443 discloses throttles 13 located between the common fluid pressure line 12 and each support element, these throttles are provided to ensure a greater pressing pressure being applied at the press roll 3 than at the backing roll 8. In this way, shell 9 of backing roll 8 sags downwardly in its axial central region. However, DE '443 fails to disclose or suggest the specifics of throttles 13, and certainly fails to disclose or suggest any information with regard to adjustability. Thus, Appellants submit that DE '443 fails to disclose or suggest, *inter alia*, an adjustment device arranged to change a pressure differential between the internal pressures generated by the at least one first support element acting on the flexible press belt of the shoe press unit, and the at least one second support element acting on the roll jacket of the counter roll, as recited in at least independent claim 1, and fails to disclose or suggest, *inter alia*, adjusting a pressure differential between internal pressures generated by the at least one first support element acting on the flexible press belt, and the at least one second support element acting on the roll jacket, where the pressure differential is adjusted by adjusting the pressure of the fluid supplied to the at least one first support unit and the at least one second support unit, as recited in at least independent claim 33.

Appellants note that EP '495 discloses a shoe press device and that the pressure of the support elements should be approximately alike, but that, contrary to the Examiner's

assertions, EP '495 discloses a *pressure reduction valve* 28 to adjust the pressure *to compensate for the weight of the roll jacket*, not an adjustment device to change a differential pressure, as recited in at least independent claims 1 and 33.

Moreover, Appellants note that EP '495 discloses additional pressure controls coupled to press shoes having different dimensions than the main shoe presses, i.e., at the edge regions. These controls are provided to reduce the pressure to the reduced sized shoes so that a uniform pressure is produced. As such, Appellants submit that EP '495 provides no teaching or suggestion of adjusting a differential pressure, as recited in at least independent claims 1 and 33, rather, EP '495 strives to maintain a uniform pressure between support elements, regardless of the relative sizes of the support elements.

As discussed above, rejections based on 35 U.S.C. § 103 must rest on a factual basis with these facts being interpreted without hindsight reconstruction of the invention from the prior art. The Examiner has the initial duty of supplying the factual basis for the rejection and may not, because of doubt that the invention is patentable, resort to speculation, unfounded assumption or hindsight reconstruction to supply deficiencies in the factual basis. *See In re Warner*, 379 F.2d 1011, 1017, 154 USPQ 173, 177 (CCPA 1967). As stated in *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1553, 220 USPQ 303, 312-313 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984):

[t]o imbue one of ordinary skill in the art with knowledge of the invention in suit, when no prior art reference or references of record convey or suggest that knowledge, is to fall victim to the insidious effect of a hindsight syndrome

wherein that which only the inventor taught is used against its teacher.

Thus, as DE '443 discloses only that the throttles are provided to produce a specific sag in shell 9, Appellants submit that it is apparent that the only reason to combine the teachings of DE '443 and EP '495 in the manner proposed by the Examiner results from a review of Appellants' disclosure and the application impermissible hindsight.

Therefore, Appellants submit that the applied documents fail to teach or suggest the requisite motivation or rationale to lead one ordinarily skilled in the art to modify BENTELE so as to include an adjustment device to change a pressure differential between the internal pressures generated by the at least one first support element acting on the flexible press belt of the shoe press unit, and the at least one second support element acting on the roll jacket of the counter roll, as recited in at least independent claim 1, and/or to adjust a pressure differential between internal pressures generated by the at least one first support element acting on the flexible press belt, and the at least one second support element acting on the roll jacket, where the pressure differential is adjusted by adjusting the pressure of the fluid supplied to the at least one first support unit and the at least one second support unit, as recited in at least independent claim 33.

Moreover, as DE '443 fails to teach or suggest different sized support elements and/or maintaining a uniform pressure between differently sized support elements extending in a longitudinal direction, the art of record fails to teach or suggest the requisite motivation or rationale for modifying DE '443 in accordance with the teaching of EP '495. Accordingly,

Appellants submit that the asserted modification of DE '443 can only be based upon a review of Appellants' disclosure and the application of impermissible hindsight, and that the rejections based on this improper combination are also improper and should be withdrawn.

Appellants also note that, in *In re Mills*, 16 USPQ2d 1430 (Fed. Cir. 1990), the Federal Circuit held that the Examiner must afford patentable weight to functional limitations that are non-obvious over the prior art. Accordingly, Appellants submit that the Examiner cannot simply ignore functional features. Further, Appellants note that, since some the pending claims recite structural features that, by virtue of their particular design and arrangement, can also provide a specified function, these feature cannot be ignored by the Examiner as merely functional.

Further still, Appellant submits that even if it is considered that the prior art documents have been properly combined, which Appellant submits they are not, the applied documents fail to disclose or suggest the various recited parameters of pressure, arrangement of the elements, the interconnection between the elements, and other recited features. Thus, Appellants submit that no proper combination of DE '443 in view of EP '495 teaches or suggests, *inter alia*, the at least one first support element being pressure fluid-actuated, as recited in claim 2; the at least one second support element being pressure fluid-actuated, as recited in claim 3; the fibrous material web comprising at least one of a paper web and a cardboard web, as recited in claim 4; a line force differential between the shoe press unit and the counter roll being changeable with the pressure differential, as recited in claim 5; a cross-

section of the pressure differential being produced lateral to the web travel direction, the cross-section of the pressure differential being changeable so different pressure differentials are adjustable over the width, as recited in claim 6; the line force in the roll nip changeable by way of the pressure differential, as recited in claim 7; line forces that are at least essentially even being adjusted in the roll nip by way of the variable pressure differential, as recited in claim 8; one of the pressure differential and the line force differential being continuously changeable in areas, as recited in claim 9; the internal pressure produced by the at least one first support element being changeable to change the pressure differential, as recited in claim 10; the internal pressure produced by the at least one second support element being changeable to change the pressure differential, as recited in claim 11; both the internal pressure produced by the at least one first support element and the internal pressure produced by the at least one second support element being changeable to change the pressure differential, as recited in claim 12; the at least one first support element and the at least one second support element being connected to the common pressure fluid line, the adjustment device comprising the adjustable pressure reduction device provided in at least one of the pressure fluid connection between the common pressure fluid line and the at least one first support element, and the pressure fluid connection between the common pressure fluid line and the at least one second support element, the pressure differential being changeable by the adjustable pressure reduction device, as recited in claim 13; at least one of the at least one first support element and the at least one second support element being connected to the

common pressure fluid line one of individually, in groups, and all together, as recited in claim 14; the adjustable pressure reduction device being provided between at least one of the groups of the at least one second support element and the common pressure fluid line, thereby reducing the pressure of the at least one second support element connected to the common pressure fluid line in groups, as recited in claim 15; the adjustable pressure reduction device being provided between at least one individual at least one second support element and the common pressure fluid line, thereby reducing the pressure of the at least one second support element individually connected to the common pressure fluid line, as recited in claim 16; the adjustable pressure reduction device including at least one variably adjustable valve, as recited in claim 17; at least one of the pressure differential and the line force differential being externally adjustable, as recited in claim 18; at least one of the pressure differential and the line force differential being adjustable by one of mechanically, hydraulically, pneumatically, manually, by remote control, at the site, from a control position, and in a process-guided manner, as recited in claim 19; the pressure differential being adjustable as a function of a line force in the roll nip by predeterminable characteristic curves, as recited in claim 20; the pressure differential being adjustable as a function of line force correction procedures for the roll nip, wherein the line force correction procedures may be at least one of input by way of an electronic control and produced by way of corresponding signals of a process guidance system, as recited in claim 21; the pressure differential being adjustable by way of a regulating system that includes at least one closed

regulation loop, as recited in claim 22; a line force in a second roll nip formed between the third roll and a fourth roll being changeable by way of the pressure differential, as recited in claim 23; at least one of the counter roll and the third roll being cambered, as recited in claim 24; the shoe press unit comprising a shoe press roll and the flexible press belt, the flexible press belt comprising a flexible press jacket, as recited in claim 26; the shoe press unit disposed above the counter roll, as recited in claim 27; the ends of the roll jacket of the counter roll being supported on the relevant carrier so that the roll jacket cannot move radially, as recited in claim 28; an action plane of the at least one second support element of the counter roll inclined slightly in relation to a second action plane of the at least one first support element of the shoe press unit, wherein an inclination angle lies in a range from about 2° to 15°, as recited in claim 29; the inclination angle lies in a range from about 4° to 8°, as recited in claim 30; an action plane of the at least one second support element of the counter roll coinciding, at least essentially, with a second action plane of the at least one first support element of the shoe press unit, as recited in claim 31; comprising pressure-active surfaces of the at least one second support element being not equal to second pressure-active surfaces of the at least one first support element of the shoe press unit, as recited in claim 32; and a control device coupled to the adjustment device, wherein the control device is adapted to adjust the adjustment device, as recited in claim 34.

Accordingly, Appellant respectfully requests that the Examiner's final rejection of claims 1 - 24 and 26 - 34 under 35 U.S.C. § 103(a) be reversed, and that the application be

remanded to the Examiner for withdrawal of the rejection over DE '443 in view of EP '495 and for an early allowance of all claims on appeal.

(F) The Rejection of Claim 25 Under 35 U.S.C. § 103(a) Over DE '443 in view of EP '495 and further in view of SMOOK is in Error, the Rejection Should be Reversed, and the Application Should be Remanded to the Examiner.

Appellants note that SMOOK fails to disclose or suggest the subject matter noted above as deficient in DE' 443, and fails to disclose or suggest the necessary motivation or rationale for modifying DE '443 in the manner asserted by the Examiner. In particular, SMOOK fails to disclose or suggest, *inter alia*, an adjustment device arranged to change a pressure differential between the internal pressures generated by the at least one first support element acting on the flexible press belt of the shoe press unit, and the at least one second support element acting on the roll jacket of the counter roll, as recited in at least independent claim 1, as now amended.

Moreover, SMOOK fails to disclose or suggest any subject matter which would provide the requisite motivation or rationale to modify DE '443 in the manner asserted by the Examiner. That is, because SMOOK fails to disclose or suggest at least the above-noted subject matter noted as deficient in BENTELE, Appellants submit that it would not have been obvious to modify DE '443 to include an adjustment device, as recited in at least independent claim 1, as now amended.

Further, Appellants submit that claim 25 is allowable at least for the reason that it

depends from allowable base claims and because recites additional features that further define the present invention. In particular, Appellants submit that no proper combination of DE '443 and SMOOK discloses or suggests, in combination, the third roll, the fourth roll, and the counter roll being cambered, as recited in claim 25.

Accordingly, Appellant respectfully requests that the Examiner's final rejection of claim 25 under 35 U.S.C. § 103(a) be reversed, and that the application be remanded to the Examiner for withdrawal of the rejection over DE '443 in view of SMOOK and for an early allowance of all claims on appeal.

(G) Conclusion

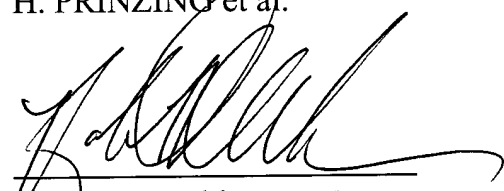
Claims 1 - 24 and 26 - 34 are patentable under the judicially created doctrine of obviousness-type double patenting over claims 1 - 9 of BENTELE in view of EP '495; and claim 25 is patentable under the judicially created doctrine of obviousness-type double patenting over claims 1 - 9 of BENTELE in view of SMOOK. Specifically, the patented claims and the applied art of record fails to disclose or suggest the unique combination of features recited in Appellant's claims 1 - 34. Accordingly, Appellants respectfully request that the Board reverse the outstanding rejections of the claims 1 - 34 under the judicially created doctrine of obviousness-type double patenting and remand the application to the Examiner for withdrawal of the rejection.

Claims 1 - 24 and 26 - 34 are patentable under 35 U.S.C. § 103(a) over BENTELE in view of EP '495; claim 25 is patentable under 35 U.S.C. § 103(a) over BENTELE in view

of SMOOK; claims 1 - 24 and 26 - 34 are patentable under 35 U.S.C. § 103(a) over DE '443 in view of EP '495; claim 25 is patentable under 35 U.S.C. § 103(a) over DE '443 in view of SMOOK. Specifically, the applied art of record fails to disclose or suggest the unique combination of features recited in Appellant's claims 1 - 34. Accordingly, Appellants respectfully request that the Board reverse the outstanding rejections of the claims 1 - 34 under 35 U.S.C. § 103(a) and remand the application to the Examiner for withdrawal of the rejection.

Thus, Appellant respectfully submits that each and every pending claim of the present application meets the requirements for patentability under 35 U.S.C. § 103(a), and that the present application and each pending claim are allowable over the prior art of record.

Respectfully submitted,
H. PRINZING et al.


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Attachments: Appendix A: Claims 1 - 34

APPENDIX A
CLAIMS ON APPEAL

1. A press device for treating a fibrous material web comprising:
 - a shoe press unit, said shoe press unit comprising a flexible press belt that revolves around a non-rotating carrier;
 - a counter roll, said counter roll comprising a deflection compensation roll with a roll jacket revolving around a second non-rotating carrier;
 - a third roll;
 - a roll nip, said roll nip formed between said counter roll and said third roll;
 - a press nip, said press nip elongated in a web travel direction, and formed between said shoe press unit and said counter roll;
 - at least one first support element, the flexible press belt supported on the non-rotating carrier by said at least one first support element in the region of the elongated press nip;
 - at least one second support element, the roll jacket supported on the second non-rotating carrier by said at least one second support element in the region of the elongated press nip,
 - a pressure fluid line arranged to generate internal pressures by the at least one first support element on the flexible press belt of the shoe press unit and by the at least one second support element on the roll jacket of the counter roll; and
 - an adjustment device arranged to change a pressure differential between the internal

pressures generated by the at least one first support element acting on the flexible press belt of the shoe press unit, and the at least one second support element acting on the roll jacket of the counter roll.

2. The press device according to claim 1, the at least one first support element being pressure fluid-actuated.

3. The press device according to claim 1, the at least one second support element being pressure fluid-actuated.

4. The press device according to claim 1, , the fibrous material web comprising at least one of a paper web and a cardboard web.

5. The press device according to claim 1, a line force differential between the shoe press unit and the counter roll being changeable with the pressure differential.

6. The press device according to claim 1, a cross-section of the pressure differential being produced lateral to the web travel direction, the cross-section of the pressure differential being changeable so different pressure differentials are adjustable over the width.

7. The press device according to claim 5, the line force in the roll nip changeable by way of the pressure differential.

8. The press device according to claim 7, line forces that are at least essentially even being adjusted in the roll nip by way of the variable pressure differential.

9. The press device according to claim 5, one of the pressure differential and the

line force differential being continuously changeable in areas.

10. The press device according to claim 1, the internal pressure produced by the at least one first support element being changeable to change the pressure differential.

11. The press device according to claim 1, the internal pressure produced by the at least one second support element being changeable to change the pressure differential.

12. The press device according to claim 1, both the internal pressure produced by the at least one first support element and the internal pressure produced by the at least one second support element being changeable to change the pressure differential.

13. The press device according to claim 1, wherein the pressure fluid line is a common pressure fluid line, and the at least one first support element and the at least one second support element being connected to the common pressure fluid line, the adjustment device comprising an adjustable pressure reduction device provided in at least one of the pressure fluid connection between the common pressure fluid line and the at least one first support element, and the pressure fluid connection between the common pressure fluid line and the at least one second support element, the pressure differential being changeable by the adjustable pressure reduction device.

14. The press device according to claim 13, at least one of the at least one first support element and the at least one second support element being connected to the common pressure fluid line one of individually, in groups, and all together.

15. The press device according to claim 14, the adjustable pressure reduction

device being provided between at least one of the groups of the at least one second support element and the common pressure fluid line, thereby reducing the pressure of the at least one second support element connected to the common pressure fluid line in groups.

16. The press device according to claim 14, the adjustable pressure reduction device being provided between at least one individual at least one second support element and the common pressure fluid line, thereby reducing the pressure of the at least one second support element individually connected to the common pressure fluid line.

17. The press device according to claim 13, the adjustable pressure reduction device including at least one variably adjustable valve.

18. The press device according to claim 5, at least one of the pressure differential and the line force differential being externally adjustable.

19. The press device according to claim 5, at least one of the pressure differential and the line force differential being adjustable by one of mechanically, hydraulically, pneumatically, manually, by remote control, at the site, from a control position, and in a process-guided manner.

20. The press device according to claim 1, the pressure differential being adjustable as a function of a line force in the roll nip by predeterminable characteristic curves.

21. The press device according to claim 1, the pressure differential being adjustable as a function of line force correction procedures for the roll nip, wherein the line force correction procedures may be at least one of input by way of an electronic control and

produced by way of corresponding signals of a process guidance system.

22. The press device according to claim 1, the pressure differential being adjustable by way of a regulating system that includes at least one closed regulation loop.

23. The press device according to claim 1, a line force in a second roll nip formed between the third roll and a fourth roll being changeable by way of the pressure differential.

24. The press device according to claim 1, at least one of the counter roll and the third roll being cambered.

25. The press device according to claim 23, the third roll, the fourth roll, and the counter roll being cambered.

26. The press device according to claim 1, the shoe press unit comprising a shoe press roll and the flexible press belt, the flexible press belt comprising a flexible press jacket.

27. The press device according to claim 1, the shoe press unit disposed above the counter roll.

28. The press device according to claim 1, the ends of the roll jacket of the counter roll being supported on the relevant carrier so that the roll jacket cannot move radially.

29. The press device according to claim 1, an action plane of the at least one second support element of the counter roll inclined slightly in relation to a second action plane of the at least one first support element of the shoe press unit, wherein an inclination angle lies in a range from about 2° to 15° .

30. The press device according to claim 29, the inclination angle lies in a range

from about 4° to 8°.

31. The press device according to claim 1, an action plane of the at least one second support element of the counter roll coinciding, at least essentially, with a second action plane of the at least one first support element of the shoe press unit.

32. The press device according to claim 1, comprising pressure-active surfaces of the at least one second support element being not equal to second pressure-active surfaces of the at least one first support element of the shoe press unit.

33. A method of treating a fibrous material with a press device capable of variably adjustable pressure and variably adjustable line force, said method comprising:

forming a press nip between a shoe press unit and a counter roll, the press nip elongated in a web travel direction;

supporting a flexible press belt, that revolves around a non-rotating carrier, on at least one first support unit, the flexible press belt supported in the region of the elongated press nip;

forming a roll nip between the counter roll and a third roll;

supporting a roll jacket, that revolves around a second non-rotating carrier, on at least one second support unit, the roll jacket supported in the region of the elongated press nip;

supplying a fluid to the at least one first support unit and the at least one second support unit;

adjusting a pressure differential between internal pressures generated by the at least

one first support element acting on the flexible press belt, and the at least one second support element acting on the roll jacket; the pressure differential adjusted by adjusting of the pressure of the fluid supplied to the at least one first support unit and the at least one second support unit.

34. The press device in accordance with claim 1, further comprising a control device coupled to the adjustment device, wherein the control device is adapted to adjust the adjustment device.